

List of Optics Experiments

Week	General Topic	Specific Topic	Details
1	Introductory Lab		
2	Geometrical Optics	Basic geometrical optics (1)	<ul style="list-style-type: none"> • Color dispersion. • Cylindrical mirrors. • Focal length and magnification of a thin lens.
3		Basic geometrical optics (2)	<ul style="list-style-type: none"> • apparent depth. • Lens maker equation. • Virtual images.
4	Dispersion	Prism spectrometer	<ul style="list-style-type: none"> • Cauchy constants of a prism. • Dispersive power of a prism.
5	Diffraction + interference	Single and double slit	<ul style="list-style-type: none"> • Diffraction by a single slit. • Young's double slit experiment. • Measuring the diameter of hair.
6	Interference	Interference in thin films	<ul style="list-style-type: none"> • Interference from an air wedge • Newton's rings
7		Fresnel's Experiments	<ul style="list-style-type: none"> • Fresnel's biprism. • Fresnel's mirror.
8		Interferometers	<ul style="list-style-type: none"> • Michelson's interferometer • Fabry-Perot's interferometer
9	Diffraction	Diffraction Grating	<ul style="list-style-type: none"> • Diffraction grating spectrometer. • reflection diffraction grating (demo).
10	Polarization	Polarimeter Abbe Refractometer	<ul style="list-style-type: none"> • Specific rotation of sugar solution. • Refractive index of sugar solution.